

IN THE CLAIMS:

1. A method of operating a fuel cell, said fuel cell comprising a cathode, an anode, and [an] a solid polymer electrolyte, said method comprising supplying a fuel stream comprising dimethyl ether to said anode wherein dimethyl ether is directly oxidized at said anode.

22. A fuel cell system comprising a fuel cell and a fuel stream supply comprising dimethyl ether, said fuel cell comprising a cathode, an anode, and [an] a solid polymer electrolyte, wherein said anode is fluidly connected to directly oxidize dimethyl ether in [a] said fuel stream supply comprising dimethyl ether.